WHAT IS CLAIMED IS:

1. A method for eliciting an immune response, the method comprising retroductally introducing into the lumen of a salivary gland duct of a subject an immunogenically effective amount of a composition comprising a nucleic acid encoding an immunogenic polypeptide, whereby an immune response is generated.

2. The method of claim 1, wherein the step of delivering is by cannulation.

3. The method of claim 1, wherein the composition further comprises an adjuvant.

4. The method of claim 3, wherein the adjuvant is a cholera toxin.

5. The method of claim 3, wherein the adjuvant is $Al(OH)_3$.

6. The method of claim 3, wherein the adjuvant is a lipid.

7. The method of claim 3, wherein the adjuvant is a polyionic organic acid.

8. The method of claim 7, wherein the polyionic organic acid is 6,6'-[3,3'-demithyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[4-amino-5-hydroxy-1,3-naphthalene-disulfonic acid].

9. The method of claim 1, wherein the composition is administered multiple times.

10. The method of claim 1, wherein the nucleic acid is operably linked to an expression control sequence.

11. The method of claim 1, wherein the nucleic acid is in a viral vector.

12. The method of claim 1, wherein the immunogenic polypeptide is a cancer antigen.

13. The method of claim 1, wherein the immunogenic polypeptide is a viral antigen.

14. The method of claim 13, wherein the viral antigen is HIV envelope protein or a portion thereof.

15. The method of claim 1, wherein the immunogenic polypeptide is a bacterial antigen.

16. The method of claim 15, wherein the bacterial antigen is anthrax protective antigen.

17. The method of claim 3, wherein the composition further comprises a lipid, whereby the lipid facilitates uptake of the nucleic acid by antigen presenting cells.

18. The method of claim 17, wherein the lipid is N,N,N',N'-tetramethyl-N,N'-bis(2-hydroxyethyl)-2-3-di(oleoyloxy)-1,4-butanediammonium iodide.

19. The method of claim 1, wherein the salivary gland is a submandibular salivary gland.

20. The method of claim 1, wherein the salivary gland is a parotid salivary gland.

21 . The method of claim 1, wherein the salivary gland is a sublingual salivary gland.

22. The method of claim 1, wherein the subject is a mammal.

23. The method of claim 22, wherein the mammal is a primate.

24. The method of claim 23, wherein the primate is a human.

25. The method of claim 1, wherein the immune response comprises a mucosal immune response.

26. A method for transfecting antigen presenting cells, the method comprising retroductally introducing into the lumen of a salivary gland duct of a subject an immunogenically effective amount of a composition comprising a nucleic acid encoding an immunogenic polypeptide, whereby an antigen presenting cell is transfected with the nucleic acid.

27. The method of claim 26, wherein the step of delivering is by cannulation.

28. The method of claim 26, wherein the composition is administered multiple times.

29. The method of claim 26, wherein the nucleic acid is operably linked to an expression control sequence.

30. The method of claim 29, wherein the nucleic acid is in a viral vector.

31. The method of claim 26, wherein the immunogenic polypeptide is a cancer antigen.

32. The method of claim 26, wherein the immunogenic polypeptide is a viral antigen.

33. The method of claim 32, wherein the viral antigen is HIV envelope protein or a portion thereof.

34. The method of claim 26, wherein the immunogenic polypeptide is a bacterial antigen.

35. The method of claim 34, wherein the bacterial antigen is anthrax protective antigen.

36. The method of claim 26, wherein the composition further comprises a lipid, whereby the lipid facilitates uptake of the nucleic acid by the antigen presenting cells.

37. The method of claim 26, wherein the salivary gland is a submandibular salivary gland.

38. The method of claim 26, wherein the salivary gland is a parotid salivary gland.

39. The method of claim 1, wherein the salivary gland is a sublingual salivary gland.

40. The method of claim 26, wherein the subject is a mammal.

41. The method of claim 40, wherein the mammal is a primate.

42. The method of claim 41, wherein the primate is a human.

43. The method of claim 26, wherein the antigen presenting cells in a proximal lymph node are transformed by the nucleic acid.

44. The method of claim 43, where in the antigen presenting cells are dendritic cells.

45. The method of claim 43, wherein the proximal lymph node is a draining lymph node.

46. The method of claim 43, wherein the draining lymph node is a submandibular lymph node.

47. The method of claim 43, wherein the draining lymph node is a parotid lymph node.

48. The method of claim 43, wherein the draining lymph node is a cervical lymph node.

49. The method of claim 26, wherein the antigen presenting cells in a salivary gland are transformed by the nucleic acid.

50. A pharmaceutical composition, the composition comprising:
a nucleic acid encoding an immunogenic polypeptide;
a lipid; and
a transition metal enhancer.

51. The composition of claim 50, wherein the lipid is N,N,N',N'-tetramethyl-N,N'-bis(2-hydroxyethyl)-2-3-di(oleoyloxy)-1,4-butanediammonium iodide and the transition metal enhancer is $ZnCl_2$.